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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/811,806

03/30/2004

Siva G. Narendra

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EXAMINER

BOATENG, ALEXIS ASIEDUA

ART UNIT

PAPER NUMBER

2838

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/811,806	Applicant(s) NARENDRA ET AL.	
	Examiner Alexis Boateng	Art Unit 2838	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 March 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,6,10,11,13,14,16,17,20,25 and 27-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,6,10,11,13,14,16,17,20,25 and 27-38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 6, 10, 11, 13, 14, 16, 17, 20, 25, 29 - 34, 36 – 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arul (U.S. 2002/0070712) in view of Watanabe (U.S. 2001/0054881).

Regarding claims 1, 2, 10, 11, 13, 14, 16, 17, 20, 25, 29 - 34, 36 – 38, Arul
discloses wherein a system, comprising:

a detector to detect a voltage stored in an ultracapacitor (paragraph [0027]); and

an extractor to extract energy from the ultracapacitor, the extractor (paragraph [0027] circuitry extracts current from the ultracapacitor) including:

a first amplifier circuit to amplify an output voltage from the ultracapacitor when the detected voltage falls below a first predetermined voltage of a load coupled to the ultracapacitor, (figure 2 item 202, paragraph [0027]: DC/DC amplifies the voltage when voltage of the ultra capacitor falls below a certain level);

Arul discloses the invention as claimed, but does not disclose remainder.

Watanabe discloses wherein a divider to divide the amplified voltage form a first control signal for the first amplifier circuit (paragraph [0092] – [0093]); and

a controller to generated a second control signal to vary a ratio of the divider, the varied ratio adjusting the first control signal to maintain the output voltage of the ultracapacitor substantially equal to or above the first predetermined voltage of the load, the first amplifier circuit to amplify the output voltage independent of coupling the ultracapcitor to a DC power source during a charging operation (Arul paragraph [0027]) of the ultracapacitor and during a time when the load it to be driven by the amplified output voltage (figure 1 item 13, paragraph [0069]). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Arul system with the Watanabe system so that a reference voltage is provided to compare the capacitor's voltage.

Regarding claim 6, Arul does not disclose the invention as claimed. Watanabe discloses a second amplifier circuit which may be used to adjust impedance of the amplified voltage output from the first amplifier circuit (figure 1 item 22). At the time of invention, it would have been obvious to a person having ordinary skill in the art to modify the Arul system with the Watanabe system so that the impedance may amplified.

3. Claims 27, 28 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arul (U.S. 2002/0070712) in view of Watanabe (U.S. 2001/0054881) applied to claim 25 and in further view of Sasaki (U.S. 6,476,587).

Regarding claim 27, Watanabe and Bean do not disclose the invention as claimed. Sasaki discloses wherein the load is at least on of a power supply, processor, cache, chipset and a memory (figure 3 shows wherein the system is used to charge the components of a mobile device which includes a power supply, processor, cache, chipset and memory). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Watanabe and the Bean system with the Sasaki system so that the system maybe used within a variety of applications.

Regarding claim 28, Watanabe and Bean do not disclose the invention as claimed. Sasaki discloses wherein the load, ultracapacitor and extractor are included on a single die (figure 1). At the time of invention, it would have been obvious to a person of ordinary skill in the art to modify the Watanabe and Bean system with the Sasaki system so that the system may be used in mobile applications.

Regarding claim 35, Watanabe and Bean do not disclose the invention as claimed. Sasaki discloses in column 2 lines 63 – column 3 line 24 wherein the load is connected to path when it is above the first predetermined voltage level and disconnected when its below the first predetermined voltage level. At the time of invention, it would have been obvious to a person of ordinary skill in the

art to modify the Watanabe and Bean system with the Sasaki system so that proper charging is ensured and the system is not damaged by overdischarging.

Response to Arguments

3. Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alexis Boateng whose telephone number is (571) 272-5979. The examiner can normally be reached on 8:30 am - 6:00 pm, Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ullah Akm can be reached on (571) 272-2361. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AB /Edward Tso/
 Primary Examiner
 AU 2838